

# It's Everyone's Business

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A **How-To-Guide** for Reducing Waste  
for South Carolina Businesses  
and Organizations

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Second Edition



South Carolina  
Department of Commerce

Provided by the **S.C. Department of Commerce's Recycling Market Development Advisory Council**  
and the **S.C. Department of Health and Environmental Control's Center for Waste Minimization,**  
**Small Business Assistance Program** and **Office of Solid Waste Reduction and Recycling.**

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## Sources

- "Business Guide for Reducing Solid Waste," U.S. Environmental Protection Agency
- "Waste in the Workplace Guide," Keep America Beautiful, Inc.
- "South Carolina Recycles Magazine," DHEC's Office of Solid Waste Reduction and Recycling, Spring 2002.

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# Introduction

## Why should businesses recycle?

It is estimated that about 50 percent of the municipal solid waste (MSW) generated in South Carolina comes from businesses.

Given that, reducing the amount of MSW – commonly known as garbage and trash – can have a positive impact on your bottom line.

But there can be additional positive impacts beyond your bottom line. Today, many businesses realize that by adopting a sustainable approach to conducting business, they can conserve natural resources and protect the environment.

A business plan that includes resource conservation also improves profits, creates jobs and results in other competitive advantages.

### It's good business.

### B-RAP Partnership

The Business Recycling Assistance Program (B-RAP) is a partnership that brings together diverse expertise and offers a one-stop shop to assist your organization in becoming more sustainable and increasing your profits.

B-RAP partners include:

- S.C. Department of Commerce
  - Recycling Market Development Advisory Council
- S.C. Department of Health and Environmental Control
  - Center for Waste Minimization
  - Small Business Assistance Program
  - Office of Solid Waste Reduction and Recycling

## What can B-RAP do for your business?

B-RAP offers free, non-regulatory, confidential assistance to help your business in its efforts to become more sustainable. B-RAP's comprehensive approach includes:

- site visits to assess waste reduction, reuse and recycling opportunities;
- research and contacts for potential markets for recovered materials and industrial by-products;
- identification of effective substitutes for hazardous materials;
- sources of recycled content products and sustainable service providers;
- compliance assistance;
- educational materials, workshops and employee training;
- electronic newsletter and Web site that includes tracking of the latest trends and markets as well as a waste exchange;
- case studies of companies that are successful in diverting waste, reusing and recycling materials and buying environmentally preferable products; and
- recognition program.

## How can your business benefit?

Waste reduction not only conserves natural resources and helps protect the environment, but also may profit your business in the following ways:

- providing cost savings by reducing waste disposal costs and material purchase costs;
- providing potential revenue from the sale of recycled materials; and
- showing leadership and commitment to your community.

# What is Waste Management?

In recent years, many companies have adopted a “hierarchy of integrated waste management principles.” In simplest terms, they have learned the need to prevent or reduce waste, reuse materials, recycle and compost when possible and dispose of the remaining waste, either at a local landfill or incinerator. In addition, waste management incorporates the purchasing and manufacturing of products that contain recycled content or produce less waste.

The adoption of integrated waste management by businesses is the result of several economic factors. As landfill space decreases, waste disposal expenses increase. Environmental concerns and the complexity of moving certain types of waste also can affect disposal costs. In addition, savvy consumers are considering environmental impacts when purchasing products and dealing with businesses. And with the need to boost profits, many companies have looked for ways to reduce the cost of managing their waste.



When we discuss waste reduction in this guidebook, we mean activities that reduce the overall amount and/or toxicity of waste needing disposal.

Avoiding waste whenever possible might be as simple as making double-sided copies or as complex as reusing industrial by-products as part of a firm's manufacturing process.

Companies need to examine the types of waste being generated, see if there are opportunities to reduce or prevent waste and reuse material whenever possible.

If there are materials that can be collected for recycling, programs can be established and outlets can be found so these items can be converted into new products. Then

completing the process, businesses must adopt strategies to buy supplies and products made from recycled materials to sustain markets and ensure that recycling programs can succeed.

Several companies in South Carolina have adopted impressive zero waste goals and are well on their way to achieving this goal.

## Recycling is good business for Barnet Polymers

Recycling isn't just something this Arcadia, S.C.-company does to save money – recycling is its business. Barnet Polymers reclaims nylon and PET fibers for use in making carpet and other plastic products.

But recycling other companies' waste isn't the only recycling going on at this 60-employee manufacturing facility. Barnet actively recycles most of the packaging waste – including cardboard boxes and tubes, pallets and bale wrap – it generates as well as used oil, acetone and scrap metal. And when possible, Barnet gets customers to let them reuse cardboard boxes that brought raw materials into the plant to ship its finished products.

Barnet doesn't limit waste reduction activities to its production facility; the office staff play a key role in helping Barnet recycle office paper, magazines, envelopes, catalogs and poster board. According to

office manager Meghan McAdams, Barnet's management has supported and encouraged recycling by its employees for the past six years. She uses signs depicting graphs that show how much waste has been diverted from the landfill as well as what savings the company has been able to achieve. In 2003, Barnet recycled more than 867 tons of materials and 3,400 gallons of used oil.

In addition, the company has helped promote recycling within the community by hosting newspaper drives that benefit the local Humane Society. The charity uses the newspaper for animal bedding and saves money by not having to purchase bedding for its animals.

As a result of these many efforts, Barnet Polymers was recognized in February 2004 with an honorable mention Business Recycling Assistance Program Outstanding Industry Recycling Award.

# Getting Started...

**I**n order to be successful, waste reduction programs must be planned carefully to meet a business' particular needs. There is no "one-size-fits-all" approach to waste management. Here are some key steps in starting a waste reduction and recycling program:

- get support from top management with involvement from every employee;
- organize a waste reduction task force and appoint a waste reduction and recycling coordinator;
- establish a policy statement for your company; and
- communicate, educate and motivate your employees.

## Management Support/ Employee Involvement

A waste management program cannot be successful without top management's support. Employees must feel that it is part of the "corporate culture" before they will change their behavior. Endorsements from management are critical as program goals are announced and collections begin. It also is important to communicate with employees the benefits of adopting waste management programs, which may include lower disposal costs, potential energy savings, improved efficiency and enhanced company image, to name a few.

Start with some simple waste reduction and recycling activities that will show results quickly and help establish your program. Be sure to communicate these early successes and compliment employees on their

efforts to build a solid foundation for your waste reduction program.

Once you have gained support from management, it is critical to get representatives from all areas of the organization to share their ideas and opinions about how to reduce waste. After all, they are the ones who know their job best and can give the most reliable information about the materials they use.

## Task Force on Waste Reduction

This team, made up of volunteers from each department, is responsible for planning, implementing and maintaining the waste reduction program. It is important to get their input before putting a plan together. The team members also serve as ambassadors for your program in their respective departments, providing a structure for communicating the program's goals and objectives to their peers. The team approach also provides an opportunity to build camaraderie among departments as well as spreads the work among more people. A waste reduction and recycling coordinator should be selected to lead this group and serve as the liaison between top management and employees.

## Policy Statement

The waste reduction task force should develop a policy statement to be adopted by top management. This statement should be communicated throughout the company using a variety of methods including employee manuals, new employee orientations, company e-mails and newsletters, bulletin or message boards and on the company's Intranet.

Having a formal policy statement in place further legitimizes the efforts of the waste reduction team and lets employees know they need to be actively involved in helping your company reach its waste reduction and recycling goals.



## Milliken & Company's Environmental Policy

Milliken & Company is committed to operating our plants and facilities in complete compliance with all applicable environmental regulations and to operate in a manner that protects the quality of our environment and the health and safety of our associates and the public.

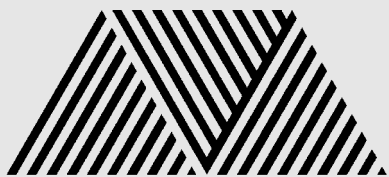
We are committed to strive for a goal of zero waste generation to all media – land, air, water – to be achieved by continual improvement in all our operations. This goal will guide the conduct of our manufacturing operations, the development of new products and our interaction with suppliers and customers. Recycling of materials is an integral part of this on-going effort.

We are committed to encouraging our families, our associates and our communities, through education and leadership, to conserve our natural resources and protect the environment in our daily lives.

We reaffirm our commitment to work with local, state and federal authorities to develop effective environmental solutions that meet tests of practicality and feasibility.

**Roger Milliken,**  
Chairman and Chief Executive Officer  
November 14, 1990

From Milliken & Company's Web site,  
[www.milliken.com/environment/policy.html](http://www.milliken.com/environment/policy.html)



# MILLIKEN

## Communicate, Educate and Motivate

Regular communication with employees about the implementation and progress of the waste reduction program is critical to its success. Frequent reminders help keep the issues of waste reduction and recycling in employees' consciousness and improve chances for changing their behaviors. Be sure to post signage in work areas as well as break rooms and other areas where employees congregate.

Use existing communication tools, whether a company newsletter or Intranet site, to reinforce messages on what is working well with your program, what areas could use some improvement and how to make those changes. And be sure to include success stories and cost savings information whenever the opportunity arises.

Education is an ongoing process and companies must remain committed to getting the word out about how important efficient waste management is to the overall bottom line.

## An Example of a Waste Reduction Team

Located in Berkeley County, Alcoa-Mt. Holly is a primary smelter which produces more than 200,000 metric tons of aluminum per year and employs more than 600 people. The facility received ISO 14001 certification in 1996 and has been recognized in South Carolina for its outstanding environmental stewardship efforts.

The formation of Alcoa-Mt. Holly's Pollution Prevention (P2) Team has been essential to the development of waste minimization practices and to the improvement of the company's recycling program. As a result of Alcoa-Mt. Holly's aggressive recycling and waste reduction policies, the company has saved more than \$1.6 million in disposal costs.

The P2 Team was chartered as a standing team made up of representatives from all departments. It works to drive improvements in environmental performance plant-wide. Achievement awards are given to employees who contribute waste minimization or pollution prevention ideas that are implemented and yearly goals are set concerning waste minimization, recycling and promotion of environmental awareness both within the facility and the community.

Meeting monthly to discuss environmental issues and exchange ideas on further improvement of waste minimization practices and recycling, the P2 Team has become an avenue for ideas concerning environmental issues to travel between all areas of production and administration.

# Conducting a Waste Audit

Once your company has a team and policy in place, you will need to assess your current waste disposal operations and begin identifying what can be reduced, reused and recycled. Use the Current Waste Operations Work Sheet (page 8) to get a basic understanding of how your company is managing its waste. You will need to look at your current waste hauler's records for what and how much has been removed from your facility as well as determine how much it costs.

You may want to review your company's purchasing records to gain perspective on the flow of materials at your facility. This helps the team determine what is brought into the business and leaves only as trash, not product. Examples may include packaging materials (cardboard boxes, pallets, shrink wrap, etc.), food service items (paper or styrofoam plates/cups) and computer paper.

If you are a manufacturing business, check production records to see if there are opportunities to reduce waste by avoiding overruns or cutting down on errors. Production records also can show how much scrap waste may be associated with varying levels of production. For example, if one pound of scrap is created for every widget produced, you can project scrap amounts for various production times (weekly, monthly or annually).

Next, designate an audit team to physically inspect the waste created on a given day. Since this exercise will require the team to physically sort through your trash, puncture-resistant gloves and old clothes are necessary. To conduct the inspection, spread a large plastic sheet and dump the day's waste onto it. Use a scale, if possible, to weigh materials and estimate the percentage of each category in the waste stream. If you produce a large amount of waste on a daily basis, use a representative sample of your trash containers.



Using the Identifying Waste Work Sheet (pages 9-11), check each type of material generated. Then estimate what percentage each material comprises of your daily waste stream. You may need to add other materials at the end of the list that are not already categorized.

Conducting a waste audit may not seem all that important at first. Some might even think just looking into the trash dumpster should suffice. But it is an effective way to gain a better understanding of what your employees are discarding and determine what waste can be reduced by implementing a reduction, reuse and recycling program.

**ENERGY TIP:** Save energy – turn off lights, computers, printers and monitors when leaving the office.

## Current Waste Operations Work Sheet

### I. DISPOSAL

Name of hauler: \_\_\_\_\_

List all collection points inside and outside the company: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Amount currently collected: \_\_\_\_\_

Frequency of collection: \_\_\_\_\_

Average bill: \_\_\_\_\_

Billing frequency: \_\_\_\_\_

Bills based on weight or volume? \_\_\_\_\_

Where is waste finally disposed (which landfill/incinerator)? \_\_\_\_\_

### II. RECYCLING

List current recycling efforts: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Materials collected: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

How are they collected? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Total amount recycled (amounts of each material collected by weight): \_\_\_\_\_

Percentage of overall waste currently recycled: \_\_\_\_\_

Recycling revenue: \_\_\_\_\_

Recycling costs: \_\_\_\_\_

Avoided disposal costs (i.e. savings accrued by not paying for material to be hauled to landfill): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_



Identifying Waste Work Sheet		
	CHECK OFF IF IN WASTE STREAM	ESTIMATE PERCENTAGE IN WASTE STREAM
<b>Paper</b>		
Green bar computer paper		
White ledger		
White form feed paper		
White copy paper		
White letterhead		
White ledger pads		
Cash register receipts		
Adding machine tape		
Envelopes		
Colored paper		
Yellow legal pads		
Letterhead		
Message pads		
Spread sheets		
Newsprint		
Magazines		
Corrugated cardboard		
Corrugated tubes		
Mixed waste paper		
Unsolicited mail		
Coated stock		
Windowed envelopes		
Stick-on notes		
Paperboard		
<b>Non-recyclable paper</b>		
Paper plates/cups		
Napkins/towels		
Tissue		
Wax-coated		
Plastic-coated		
Carbon paper		

*Continued on the following page*

## Identifying Waste Work Sheet (continued)

	CHECK OFF IF IN WASTE STREAM	ESTIMATE PERCENTAGE IN WASTE STREAM
<b>Plastics</b>		
#1 PET bottles		
#2 HDPE bottles		
#2 HDPE film		
#3 Vinyl bottles, pipe, siding		
#4 LDPE film		
#5 Polypropylene		
#6 Polystyrene foam		
#6 Rigid polystyrene		
Other plastics		
<b>Metal</b>		
Aluminum cans		
Aluminum foil		
Other aluminum (rain gutters, etc.)		
Steel cans		
Other ferrous metals		
<b>Electronics</b>		
Cell phones		
Computers		
Copiers		
Fax machines		
Printers		
PDAs		
Telephones		
<b>Food Waste</b>		
Baked goods		
Cooking oil		
Dairy products		
Grease		
Meat waste		
Vegetable waste		
<b>Glass</b>		
Brown		
Clear		
Green		

*Continued on the following page*

## Identifying Waste Work Sheet (continued)

	CHECK OFF IF IN WASTE STREAM	ESTIMATE PERCENTAGE IN WASTE STREAM
<b>Lighting</b>		
Fluorescent lamps		
HID		
<b>Wood</b>		
Construction/demolition waste		
Crates		
Land-clearing debris		
Pallets		
<b>Yard Waste</b>		
Grass clippings		
Leaves and brush		
<b>Automobile Items</b>		
Batteries		
Used oil		
Oil filters		
Antifreeze		
Tires		
<b>Other Materials</b>		

See **Appendix I** for background information on recycling the materials that are listed above.

### Bose Corporation enjoys the sound of recycling

Since opening its Blythewood manufacturing facility in 1996, Bose Corporation has strived to protect its employees and the environment. It first focused on reducing hazardous waste, resulting in the elimination of lead solder and clippings. Metal scrap and cardboard recycling also were added.

As part its certification efforts for ISO 14001, Bose discovered that its cardboard recycling program was not as effective as it could be. Although Bose

recycled almost 300 tons of cardboard in 2002, employees determined that half of its tonnage going to the landfill was still attributable to cardboard.

Working with Sonoco/PaperStock Dealers, Bose put in a baler and worked to educate its employees and janitorial service to incorporate cardboard recycling into everyday operations. As a result, cardboard recovery has jumped dramatically, and in 2003 more than 760 tons of cardboard were recycled.

# Waste Audit Follow-Up

**N**ow that the waste reduction team has a better understanding of what waste your company is generating, it is better equipped to determine what steps to take to reduce, reuse and recycle. Here is an easy six-step approach to follow:

## 1. Get the facts.

Use the results of your waste audit to determine what waste can be prevented, what can be reused or recycled and what waste still may need to be disposed of.

## 2. Involve staff.

Getting management buy-in and setting up a waste reduction team are major steps to implementing a successful program. Still, you need to encourage all employees to participate to get the best results. Ask employees for their ideas about ways to reduce waste. Provide suggestion boxes or use occasional department meetings to brainstorm about waste prevention and recycling opportunities.

Once your plan is in place, all employees and managers must be educated about waste reduction and recycling processes. Keep them informed and involved at all steps in the development and implementation of a program. Employees can be a valuable resource in identifying ways to improve the program.

## 3. Plan thoroughly.

Begin by prioritizing the elements of the waste stream for action. Ideally, every element will be targeted for reduction/recycling but, in the beginning, it is best to concentrate on the materials that make up the greatest portion of your waste stream.

When targeting a type of material, consider:

- a. How much is generated?
- b. Can the waste be reduced or recycled?
- c. Are there regulations or state laws (i.e., landfill bans, recycling mandates) that need to be considered?



- d. What are the economic factors at play? Are there cost savings from reducing waste? Are recycling revenues significant? Are markets available for your materials?

## 4. Focus on results.

It is important to establish a record-keeping system to track the effectiveness of the program. Track your savings from waste reduction and recycling. For instance, you may experience savings in waste collection fees because you have diverted 20 percent of your materials for recycling, but labor costs for collecting, preparing and storing the recyclables may increase your operating expenses. By recording these measures you can see if the program is economically beneficial.

However, it is important to point out that companies are not going to make huge profits based on recycling programs. Sometimes you make money on recycling and other times you just break even. Remember that typically waste management costs are rising and an investment now to reduce waste is likely to reap benefits and savings in the future.

The waste reduction team should continue tracking waste and identify further opportunities for waste reduction and recycling. Ultimately, the success of your program should be measured by the amount and quality of waste diverted from disposal. It is important to establish a baseline measurement of

waste destined for disposal and then regularly determine your success in reducing and/or recycling waste.

See **Appendix II** for an example of the recording system developed by Alcoa-Mt. Holly plant in Goose Creek, S.C.

## 5. Determine costs.

Analyzing savings in waste disposal costs is another way to quantify your program results.

To find total disposal costs:

- a. Add together custodial services, garbage bills and confidential destruction costs.
- b. Subtract revenue from current recycling programs.
- c. This amount equals your total disposal cost.

If you lease your building and garbage disposal is part of the monthly rent, you may want to see if the landlord will offer a discount if disposal expenses are reduced through your waste reduction and recycling efforts.

## 6. Use positive reinforcement.

Positive reinforcement of your program's success and employees' dedication are key components for success. Developing a sense of ownership and pride in the efforts will encourage many to continue reducing waste and recycling. You also may want to consider some other incentives to keep employees motivated, such as lunch with the boss, a special parking place, recognition in employee communications, or even a thank you letter posted on your employee bulletin board or better yet, an e-mail thank-you note. Be as creative as you can and your employees will continue to help your bottom line.

### Elements of a Waste Reduction/Recycling Program

- Get management support.
- Organize a task force.
- Establish a baseline to measure progress.
- Set specific goals for volume and weight reduction.
- Commit to accurate accounting and reporting.
- Evaluate your program regularly.

## Aluminum recycler fosters sustainability

JW Aluminum is the largest continuous cast aluminum smelter in the United States. This 380-employee plant produces 200 million pounds of aluminum a year and its rolled aluminum product contains anywhere from 25 to 40 percent recycled content. That equates to a demand of 65 million pounds of scrap aluminum each year. The company is aggressively pursuing more scrap feedstock to increase its recycled content percentage.

Not only does JW Aluminum help foster sustainability in South Carolina by taking scrap aluminum for recycling from other companies, it also uses a sustainable approach to its business operations to protect the environment and conserve natural resources. Like many manufacturing facilities, it recycles cardboard, paper, fluorescent lighting and steel. Pallets are ground into woodchips and sold as boiler fuel rather than sent to the landfill. The company

also started a wastewater/waste oil recovery system that processes, separates and burns used oil in furnaces – resulting in 135 million cubic feet savings of natural gas in the course of a year.

As a large consumer of natural gas, JW Aluminum has designed and patented its own smelting furnaces to process more recycled aluminum while reducing natural gas consumption and air emissions. This new system has resulted in 20 percent less natural gas being used and a reduction in air emissions by a staggering 90 percent.

In recognition of its aggressive environmental and safety programs, JW Aluminum received the Sustainable Charleston Overall Achievement Award in 2004.

# Waste Reduction Considerations

A waste reduction program can be simple, involving low-cost techniques such as improved inventory control, operations and maintenance. There are many ways to practice waste reduction – or prevent waste all together. Below are some easy-to-implement source reduction strategies that can be adopted as official company policy. Be sure to communicate these policy changes with employees to maximize their effectiveness.

## Reduction Strategies

- Store documents electronically instead of making hard file copies.
- Route memos instead of making duplicates for each person.
- E-mail correspondence when possible.
- Use double-sided copying.
- Use reverse side of drafts for note paper and incoming faxes.
- Reuse file folders by reversing them or re-labeling them.
- Fax documents without cover sheets by using sticky notes when possible.
- Use hardwood or plastic pallets versus softwood. Hardwood pallets can be reused five or six times and plastic pallets can be reused hundreds of times. Consider the cost savings of reusing pallets.
- Work with all suppliers to return shipping materials, crates, cartons and other packaging for reuse.
- Return toner cartridges from ink jet and laser printers for refurbishing.
- Shred mixed paper and let the shipping department use it for packing material.
- Lease personal computers and other equipment.



## Purchasing

The person responsible for purchasing supplies should be directly involved in the waste assessment process and in developing the overall waste reduction program. Implementing good operating procedures will lead to waste reduction with little effort. These include material tracking and inventory control, scheduling shipments and efficient material handling and storage. Encourage suppliers to reduce their packaging and to use recycled materials wherever feasible.

Watch over-ordering to save on unit cost – it may lead to careless use of supplies. Also, products with a limited shelf life, such as paint, may go bad.

Order one or two copies of magazines and newspapers and encourage employees to share them or place them in a lounge or employee lunchroom. Donate past issues of magazines to nursing homes, hospitals and schools. A local library or college may accept trade magazines that they may not receive. Old newspapers can be reused by the mail room for packing material. It may be useful to survey employees on preferred newspaper subscriptions.

**RECYCLING FACTOID:** Recycling reduces greenhouse gas emissions that impair air quality.

## Equipment

Examine equipment on a daily basis to determine if excess waste is created.

If your photocopier does not have a double-sided copying feature, consider upgrading. Many copiers without the feature can make double-sided copies by running the paper through twice. It is a little more work, but for large jobs it's well worth the effort, saving money on paper supplies and reducing waste.

Employee training is critical. Note areas where large quantities of waste are generated. If the wastebasket near the copier or computer printer fills up often, employees may not understand how the equipment works and may be making unnecessary mistakes.

Practice preventive maintenance on all equipment. Regular maintenance will extend the useful life and reduce the amount of materials wasted when the machine is not working properly.

## Other Reduction Tips

If you generate a lot of cardboard boxes, consider reusing them for your own shipping needs; giving them to employees, moving companies or mail distribution businesses; or returning them to the distributor for reuse. Of course, you always could consider recycling cardboard. In many instances, cardboard is recycled at a high rate because of its value.

Offer a discount to customers who bring in their own packaging, such as reusable grocery sacks.

Purchase needed materials in bulk and use reusable dispensers that can be refilled.

Restaurants and other food service establishments should consider donating leftover food to shelters for the needy. Or they could begin composting food waste.

The use of reusable cups and self-serve dispensers for beverages, rather than single-serve items, can eliminate a great deal of material requiring recycling or disposal.

## Fluorescent Bulb Recycling

You see them everywhere – in local businesses, large retailers, hospitals, schools, grocery stores, offices and government buildings. Fluorescent lighting is a common fixture in many buildings thanks in part to its energy efficiency and the cost savings it provides.

Most of us know that fluorescent bulbs are energy-efficient – using about one-fourth the energy and lasting about 10 times longer than incandescent bulbs (a light bulb). That efficiency saves energy and money. Many of us, however, are unaware that fluorescent bulbs as well as other types of energy-efficient lighting contain mercury – which is toxic. When broken, compacted, crushed or disposed of improperly, fluorescent bulbs may release mercury into the air, water and soil posing a significant risk to human health and the environment.

**It is important to note that all generators of spent fluorescent bulbs are responsible by law for their proper disposal.** Building owners and property managers need to ensure they are doing their part to limit mercury exposure and properly handle fluorescent bulbs at the end-of-life. The recycling of these bulbs may limit your organization's liability and reduce the need for enforcement action. Clearly, the best management option is to recycle the bulbs.

Some fluorescent bulb manufacturers have introduced "green" tip bulbs. While these bulbs typically contain less mercury than standard fluorescent tubes, B-RAP strongly recommends and encourages generators to recycle "green" tip bulbs as well as all other mercury-containing bulbs. For information on other management options, please call **(803) 896-4142**.

Several companies provide collection and recycling services for a fee. Fees may vary based on transportation costs and volumes for pick-up. Once the bulbs are properly recycled, the generator will receive a certificate of recycling.

When purchasing lighting for your building, look for bulbs that not only provide the greatest energy efficiency and longest life, but also contain the lowest possible mercury content. If the vendor you purchase bulbs from doesn't provide recycling information, there are a number of other resources available to help you properly manage your bulbs.

For more information, visit the Business Recycling Assistance Program at [www.scdhec.gov/brap](http://www.scdhec.gov/brap).

# Tips for Recycling

**R**ecycling offers the business community an excellent method of reducing the amount of waste disposed. However, if you choose to start a recycling program, be aware that it is a significant undertaking and may cost a considerable amount of money, particularly in the start-up phase.

The completed waste audit tells you what types of waste are produced and in what quantity (refer to the Appendix I: Materials Background). Take the information from the waste audit and determine if there are markets for any or all of these materials in your region. You can contact the Business Recycling Assistance Program (call **1-800-768-7348** or visit [www.scdhec.gov/brap](http://www.scdhec.gov/brap)) or your local recycling coordinator (visit [www.scdhec.gov/recycle/html/counties.html](http://www.scdhec.gov/recycle/html/counties.html)) if you need help in identifying markets for material.

The quality and quantity of material produced is very important to the potential recycler, as is your ability to prepare the materials for collection. Before you commit to a recycling program be sure to ask yourself if you are willing to accept the initial and perhaps on-going costs, and if there is a staff person who can oversee the program on a long-term basis.

If you produce materials that are recyclable but do not produce a sufficient quantity, consider working with a neighboring office or business. The local Chamber of Commerce or recycling coordinator may be able to identify other area businesses that are interested in recycling. You also may designate a staff person to take recyclables to a community drop-off center.

## Keys to a Successful Commercial Recycling Program

- Determine what recyclables are in the waste stream by conducting a waste audit.
- Research markets for those recyclables (and quantities) that you generate.
- Determine space, container and equipment needs.
- Contact your waste hauler and negotiate rates to include recycling.
- Educate and promote.
- Monitor recovery rates, revenues and costs.

When you begin your recycling program, prioritize what items you will start with and build your program from there. While it makes sense to recycle your high volume waste first, it may not always be the easiest or most successful material to recycle. For example, cardboard is a good item to include in new recycling programs because several markets exist in South Carolina and prices are relatively good for that material. Scrap metal is another good example for much the same reason – it has good economic value and markets are readily available.

Some companies may generate plastic strapping or shrink wrap, but due to its light weight, this material is more difficult to recycle. You have to collect great volumes before you are able to command significant revenue for this portion of your waste stream. That's not to say you shouldn't recycle plastic strapping or wrap – you just may want to consider tackling that material as your recycling efforts mature.

Your team also needs to develop a definition of success. In other words, if you divert 50 percent of your company's waste from disposal, either through reuse or recycling, would you consider your program successful? If your program is new, the answer is **yes**. But if your company has recycled for several years, it may be time to re-evaluate your program and set new, higher goals.

## Composting

Another area that has seen increasing interest by businesses wanting to reduce waste is composting.

Retail food service companies or businesses that generate food waste through cafeterias or break rooms may be able to send this material, excluding dairy products and meats, to a municipal or private compost program. Or if there is space available and committed personnel to manage it, an on-site composting program may be warranted.

Composting also can include yard waste collected from landscape maintenance and some sludge materials produced as a by-product of the manufacturing process for some companies. The benefit of composting is a value-added product that can be used for landscape applications at considerable savings compared to buying retail compost products.

For more information, call DHEC's Office of Solid Waste Reduction and Recycling at **1-800-768-7348** or visit [www.scdhec.gov/recycle/html/compost.html](http://www.scdhec.gov/recycle/html/compost.html).



# Markets for Recyclable Materials

## 1. Work with local markets, if possible.

Even if the price offered is lower than that of a dealer in the next county, transportation savings may offset the difference. Therefore, it is important to compare net rather than gross revenues.

Estimate quantities of material to be collected and put out a request for proposals. Then begin the negotiation process. Negotiable items include freight, collection containers, allowable levels of contaminants, method and time for payment, and length of contract. Contracts can protect both buyers and sellers against severe fluctuation by establishing a floor price when the market is down and a discount when the market is up.

When collecting sufficient quantities of material, selling them directly to manufacturers or mills may be possible. Scrap processors and dealers act as a middleman and purchase material from many sources. In many cases, a higher price can be commanded if recycled materials are sold straight to a mill. However, there is always a risk that the mill may not be able to accept your material due to unforeseen circumstances. The size of the program will dictate the marketing of the material.

Talk with several companies before making any commitments. In a multi-material collection program, you may have to work with a number of material buyers.

## 2. Get the facts.

Make sure you clearly designate in your contract the responsibilities for both the vendor and for your company. You need to know up front what the vendor's specifications are. For example, should glass be color separated and crushed? May magazines be mixed with newsprint? Should cardboard be baled? Specifications will determine what type of equipment you may need to purchase, such as balers or shredders.



## 3. Network.

Talk to area organizations to learn about potential markets. Consider cooperative marketing with to increase volumes and receive better prices.

## 4. Deal with reputable materials users.

Companies with established track records are the safest. If negotiations are being held with a small company, or one that is not well known by recycling professionals, you should carefully check their background and ask for references. Established firms will often provide technical assistance, keep customers apprised of market fluctuations as well as cyclical downturns and upswings, and should adjust prices accordingly.

Beware of dealers who do not make regular pick-ups, dispute tonnage or fail to make timely payments. Cash flow is a very important consideration for fledgling operations.

## 5. Develop long-term relationships with buyers.

For example, it is not always advisable to switch to a new waste paper dealer just because they are offering \$1 more a ton than the recycler you have been dealing with for the past several years. If there is a market downturn, the steady buyer will be more inclined to stand by you if you stand by him.

## 6. Beware of price optimism.

When checking prices paid for recyclables, realize markets change and prices fluctuate. Spot prices do not accurately reflect the prices earned in exchange for a long-term contract. Nevertheless, it is a good idea to regularly monitor market prices to make sure you are getting a fair price.

## 7. Be flexible.

If a market collapses, seek other options. For example, if it is impossible to sell newsprint to a paper dealer or mill, perhaps it can be sold for use as animal bedding or cellulose insulation. Your local recycling coordinator may be able to help you find alternative markets.

## 8. Close the loop.

The best way to sustain and strengthen recycling markets is to purchase products made with recycled material. Collecting and processing recyclables to be made into other products are the first two steps of the recycling loop. Buying these products completes the loop. Given the economic impact that business and industry can have in purchasing, buying recycled helps keep markets strong.

## S.C. Waste Exchange

Another means of reducing your waste stream, beyond reduction and recycling, is to participate in a resource exchange with other businesses. The S.C. Waste Exchange is a valuable on-line resource for businesses. This free service offers a clearinghouse of information for companies that have material available as well as those companies who need material. In essence, one company's "waste" becomes another's "resource."



Visit the S.C. Waste Exchange on-line at [www.scdhec.gov/brap](http://www.scdhec.gov/brap).

## Recycling for Humanity

Recycling for Humanity is a unique, partnership that will not only give you an opportunity to help Habitat for Humanity but also protect the environment by saving natural resources. The partnership, made up of DHEC's Office of Solid Waste Reduction and Recycling, the S.C. Department of Commerce and the Habitat for Humanity Resale Stores, provides South Carolina businesses and others the chance to reduce excess inventory responsibly, earn tax savings, help their community, reduce waste management costs, conserve natural resources and save landfill space. How? By donating the materials to a resale store.

Habitat for Humanity is a non-profit organization whose volunteers build homes for people in need. About 32 homes per year are built through the current sales from S.C. Habitat for Humanity Resale Stores. The homes are sold to partner families at no profit, financed with affordable, no-interest mortgages. The partner families, who help build the homes, make mortgage payments that are placed in a revolving fund that is used to build more homes.

In South Carolina, Habitat for Humanity has 19 resale stores across the state. The stores accept donations of materials such as furniture, housewares, appliances, computers, carpet and building materials. These items are resold to the public and the funds used to help support the home building program of the local affiliate.

Acceptable donations vary by store. Some stores will accept all donations that are in good working order and can be sold.

### S.C. HABITAT FOR HUMANITY RESALE STORES

#### UPSTATE

Gaffney .....	864-487-3793
Greenville .....	864-298-0099
Greenwood .....	864-953-9880
Landrum .....	864-457-2666
McCormick .....	864-465-9094
Seneca .....	864-888-2118
Spartanburg .....	864-583-1332

#### CENTRAL REGION

Aiken .....	803-642-9295
Columbia .....	803-252-3570 ext. 105
Sumter .....	803-934-9749

#### LOW COUNTRY

Beaufort .....	843-525-0055
Charleston .....	843-579-0777
Georgetown .....	843-545-5868
Hilton Head/Bluffton .....	843-757-9995
Johns Island .....	843-559-4009
Summerville .....	843-851-1414

#### PEE DEE

Hartsville .....	843-383-8500
Marion .....	843-423-4663
Myrtle Beach .....	843-626-5577

*Pick-up services are available at most stores.*

# Buying Recycled Content Products

**I**n order to establish a good program for buying recycled content products, organizations should include the following key elements:

## 1. Commitment to Buy

Organizations must establish a policy to buy recycled content products. This commitment is necessary to ensure that manufacturers of recycled content products have markets and that a consistent, long-term demand exists so that they can invest in recycling equipment.



## 2. Review Purchasing Specifications

All specifications must be reviewed to eliminate prohibitions or limitations against recycled content products. In addition, more subtle obstacles to purchasing recycled products, such as brightness levels for paper, must be identified and revised.

## 3. Common Definitions and Percentages

Companies may consider using existing minimum recycled content standards and definitions, such as those established by the U.S. Environmental Protection Agency. There are also numerous Web sites dedicated to promoting recycled content products and many have information on the product performance and price.

## 4. Variety of Products

Even though paper makes up the largest percentage of the waste stream, buying recycled paper alone will not solve the solid waste problem. There are a wide variety of recycled content products available today, including re-refined motor oil, office supplies and furniture, auto parts, plastic containers, wallboard, carpeting, compost, insulation, solvents and rubber products.

## 5. Testing Products

Your waste reduction team may want to test recycled content products to determine how they work on certain equipment or for particular end uses. Consider doing “blind” testing to avoid a bias for virgin content products over those with recycled

content. You may be surprised to learn that the quality of recycled content products has improved over the years and, in many cases, their performance is identical to, if not better than, their virgin material counterparts.

## 6. Phased-in Approach

Companies can phase in the use of recycled content products so that users can adjust to the program and manufacturers can make long-term capital investments to retool equipment to accept recycled materials.

## 7. Price Incentives

Recycled products may be more expensive than virgin products due to tax policies, price fluctuations or economies of scale in production or end use. Companies may adopt such strategies as price preferences for recycled products, lifecycle costing or use of set-asides (where recycled products are purchased separately). Any extra funds spent should be viewed as an investment in market development, much like the other parts of establishing your recycling program.

## 8. Cooperative Purchasing

In some cases, it makes sense for businesses to work together to buy recycled content products. These cooperative purchases expand the volume of products purchased, reduce unit costs of recycled products, help ensure availability and establish common definitions and percentages. Examples of potential co-ops include state and local governments establishing regional purchasing programs, non-profits and community groups buying together and smaller businesses establishing collaborative programs. By working together, all participants in cooperative purchasing may be able to save valuable time and resources.

**B-RAP FACTOID:** Through recycling, the United States is saving enough energy to provide electricity for 9 million homes per year.

## 9. Other Considerations

Companies committed to buying recycled content products should solicit and publicize bids from manufacturers and vendors of recycled products. As mentioned before, manufacturers and vendors provide a wide range of recycled products and it is up to the purchasing agent to request the company's preference for recycled products.

Companies also need to keep good records of the recycled products they buy, note any price fluctuations and follow-up with users to ensure the products performed satisfactorily.

The Business Recycling Assistance Program can provide assistance in helping companies develop an effective program for buying recycled products. You also can learn more about buying recycled through a variety of Web sites on the Internet. Just remember, buying recycled really closes the loop and is an integral part of making recycling work for everyone.

### Key Elements of Buying Recycled Products

- Make a commitment to ask for specifications on recycled content products from vendors and purchase these products for your business.
- Consider implementing a price preference for recycled content products and let employees know of this preference.
- Do your research – evaluate product performance as well as price and availability when making purchasing decisions.
- Consider working with other businesses to purchase recycled content products cooperatively – increased quantities will lower unit costs and create savings for all involved.

## SMI Steel expands its recycling efforts

SMI Steel has diverted a number of materials from its waste stream by recycling and reduced the number of trash containers at its 90-acre Cayce-West Columbia facility from 20 to four. They've gone beyond the typical office paper and cardboard recycling to incorporate materials such as pallets, fluorescent bulbs, Ni-Cd batteries, computer equipment, oily rags and mats, empty aerosol cans and parts washer solvents. Waste reduction and recycling activities have been implemented throughout all areas of this mini-steel mill, including its melt shop, roll mill, customer service/transportation area and its administrative offices.

SMI Steel has achieved success by using a team approach. The Solid Waste Task Force



incorporates employees from a number of areas, including production and mill employees as well as representatives from the office areas. And committed to promoting goodwill among employees for the recycling program, the task force collects aluminum drink cans and uses the proceeds to benefit the employees' emergency fund.

As a recycling business, SMI recycled more than 700,000 tons of scrap metal last year. The team also participated in the Great American Clean Up, accepting scrap metal from the general public as part of a special Saturday collection event.

SMI Steel was recognized with the Outstanding Industry Recycling Award in 2004 by the Business Recycling Assistance Program.

# Appendix I: Materials Background

## Plastics

If your organization generates a variety of plastic waste, you may need to call the supplier or manufacturer to determine what type of plastic it is. This information is critical in recycling plastics. To assist in identifying bottles and containers, the Society of the Plastics Industry developed a coding system and 39 states, including South Carolina, have passed legislation mandating this coding be incorporated on all bottles and rigid plastic containers.

Consisting of a triangular mark of chasing arrows accompanied by a numeral, the code identifies the resin type. The code identifies six basic resin types plus an "other" category utilizing the numbers 1-7. The resins identified are:

- #1 Polyethylene Terephthalate (PET)
- #2 High Density Polyethylene (HDPE)
- #3 Polyvinyl Chloride (V)
- #4 Low Density Polyethylene (LDPE)
- #5 Polypropylene (PP)
- #6 Polystyrene (PS)
- #7 Other

The code allows containers and bottles to be sorted by resin types. While plastics can sometimes be recycled in a commingled stream, pure resin streams normally yield a higher value for the recycler.

## Paper

Paper comprises 40 percent of the municipal solid waste stream by weight. The markets for much of the paper found in the commercial sector are strong. Computer printout and white ledger are particularly good markets, offering a high return for material. Of course, as more business recycling programs are established and more material enters the secondary marketplace, the prices may drop.

Colored paper can be recycled, but there are fewer markets for this lower grade of paper and it generates less money. Mixed waste paper includes magazines, paperboard, envelopes and other material. A very limited number of markets exist for this grade of paper.

To understand what is considered a contaminant, you should contact recyclers, haulers or local recycling officials who are familiar with local markets. A contaminant to one recycler may not be to another.

## Cardboard

Corrugated cardboard has high value and is easy to pick out of the waste stream for recycling. Companies that recycle cardboard may gain some revenue and decrease disposal costs.

Others allow entrepreneurs to pick up the material for free, simply to lessen the amount of waste they pay for disposal.

## Aluminum

Aluminum cans comprise less than one percent of the waste stream, and more than 50 percent of all cans currently are being recycled. Aluminum has one of the highest values of all recyclable materials. It can be recycled into new cans and back on store shelves within six weeks of being collected from consumers. Foil and other aluminum products such as rain gutters or house siding are recyclable but must be collected separately from cans because they are made from a different alloy.

## Steel

Scrap dealers have been recycling steel and other ferrous metal for decades. A push to recycle steel beverage and food containers is taking place across the country. Commonly referred to as "tin cans," the containers are coated with a very thin layer of tin that is often removed and recycled separately by detinners. Bi-metal beverage containers have steel bodies and aluminum ends. The aluminum does not have to be removed to be included in the steel recycling process.



## Other Scrap Metal

Iron-containing or ferrous scrap metal can readily be recycled in South Carolina, with several scrap metal processors located throughout the state.

Non-ferrous metals (do not contain iron) include copper and brass. Depending on quantities, they can be valuable and can be processed by scrap metal recyclers.

## Glass

Glass containers must be separated by color for recycling. When they become mixed there is virtually no market for the glass as new containers. Leaded glass, baking glass and ceramics cannot be recycled with glass containers at this time.

## Wood Waste

Wood waste, especially pallets, can be a large part of some businesses waste stream. Fortunately, it can be easily reused and recycled in S.C. Pallet recyclers can refurbish slightly damaged pallets. Once pallets become too damaged for reuse, they can be burned as an alternative fuel source or in some cases, chipped for mulch. Other wood wastes that may be recycled include crates, sawdust and scrap wood that may result from furniture manufacturing.

The open burning of any waste material generated at a facility is prohibited under S.C. DHEC R61-62.2. For more information, please contact DHEC's Office of the Permitting Liaison at **(803) 896-8983**.

## Automotive Wastes

Businesses with automotive equipment and/or fleets should recycle used oil since it is banned from disposal in S.C. landfills. In many areas, markets are available to accept used oil filters and oil bottles in addition to used motor oil. Antifreeze, gasoline and other automobile fluids also can be recycled.

When purchasing supplies for your cars, you may want to consider using re-refined oil or reusable oil filters. Some companies and government agencies are using blended fuels as a means of reducing air emissions and improving gas mileage. Check with your maintenance staff to ensure use of these alternative materials will not affect your fleet's performance or warranties.

Additional automotive wastes that can be recycled are belts, hoses, tires and lead-acid batteries. The last two are important because they also are banned from S.C. landfills.

## Carpeting

Another high volume waste for some businesses is carpeting – much of which is readily recyclable. Nylon fiber, the most prominent type of carpet fiber, is a valuable polymer and can be used in many different applications.

Efforts are underway nationally to develop an infrastructure to support carpet recycling collection as well as manufacture new products from this recycled material. Carpet manufacturers have devoted considerable time and resources to develop processes for recycling post-consumer and post-industrial fiber. They also are looking at ways to lengthen the life and durability of carpet products as well as addressing issues related to indoor air quality.

For more information on carpet recovery and recycling, visit the Carpet America Recovery Effort (CARE) Web site at [www.carpetrecovery.org](http://www.carpetrecovery.org). For S.C. companies that accept carpet for recycling, call DHEC's recycling hot line at **1-800-768-7348**.

## Electronics

One of the fast growing waste streams in the United States is electronics waste, commonly referred to as E-waste. Comprised of old computers, televisions and monitors, computer peripherals, fax and copy machines, VCRs and DVDs, cellular phones and other wireless devices, E-waste contains valuable components that are reusable and/or recyclable. But only a small percentage of it is being recycled. E-waste may contain hazardous materials, such as lead, mercury and chromium that, if handled improperly, may negatively impact the environment.



In South Carolina, legislation has been introduced to set up an electronics recycling program for the state. Until this legislation is enacted, limited opportunities exist for recycling E-waste. Contact your local recycling coordinator (visit [www.scdhec.gov/recycle/html/counties.html](http://www.scdhec.gov/recycle/html/counties.html)) or call DHEC's recycling hot line, **1-800-768-7348**, for a list of companies that recycle electronics waste.

# Appendix II: Annual Collection Data Sheet

## MATERIALS COLLECTED FOR RECYCLING

YEAR: \_\_\_\_\_ LOCATION TYPE: \_\_\_\_\_ UNITS: \_\_\_\_\_

*Indicate measurements in tons or pounds.*

GLASS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
<b>Beverage:</b>												
Brown												
Clear												
Green												
Mixed												
<b>Non-beverage:</b>												
Brown												
Clear												
Green												
Mixed												
Other Glass (describe)												
SUBTOTAL FOR GLASS:												
<b>METAL</b>												
Aluminum (non-ferrous) - Beverage Containers Only												
Tin/Steel (ferrous) Cans												
Ferrous/ Magnetic (i.e. tin/steel - not cans)												
Non-ferrous (non-magnetic metals: i.e. aluminum - non-beverage containers, lead, copper)												
Other Metal/ Scrap Metal (do not include white goods or automobile bodies)												
Mixed Metals (do not include white goods or automobile bodies; include description)												
SUBTOTAL FOR METAL:												

YEAR: \_\_\_\_\_ LOCATION TYPE: \_\_\_\_\_ UNITS: \_\_\_\_\_

*Indicate measurements in tons or pounds.*

PAPER/ PAPERBOARD	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Cardboard												
Magazines												
Newspapers												
Office Paper/ Computer Printouts (CPO)												
Mixed Office Paper												
Telephone Directories												
Other Paper/ Paperboard												
SUBTOTAL FOR PAPER/ PAPERBOARD:												
<b>PLASTIC</b>												
#1 PETE - Polyethylene Terephthalate (soda & water bottle, peanut butter jars, etc.)												
#2 HDPE - High Density Polyethylene (milk jugs, soda, water & bleach bottles, etc.)												
#3 V - Vinyl (pipe, bottles, siding, etc.)												
#4 LDPE - Low Density Polyethylene (grocery & bread bags, food wrap, etc.)												
#5 PP - Polypropylene (syrup bottles, margarine tubs, straws, etc.)												
#6 PS - Polystyrene (hot beverage cups, meat trays, egg cartons)												
Other Plastics												
SUBTOTAL FOR PLASTICS												



YEAR: \_\_\_\_\_ LOCATION TYPE: \_\_\_\_\_ UNITS: \_\_\_\_\_

Indicate measurements in tons or pounds.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
<b>BANNED ITEMS</b>												
<b>Lead-acid Batteries:</b>												
Automobiles (39.4 lbs.); Trucks (53.3 lbs); Motorcycles (9.5 lbs); Small, Sealed, Lead-acid Batteries												
Aircraft, boats, heavy-duty trucks, military vehicles, tractors (provide conversion factor)												
<b>Used Oil:</b>												
Amount Collected (1 gallon = 7.2 lbs.)												
<b>Waste Tires:</b> (List only the amount recycled including tires chipped for energy recovery. DO NOT include tires chipped for burial.)												
Automobile (21 lbs.), Trucks (70 lbs.)												
Motorcycles, buses, heavy farm & construction equipment (provide conversion factor)												
<b>White Goods:</b>												
Amount Collected (NOT long tons)												
<b>Yard Waste &amp; Land-clearing Debris (LCD):</b>												
Include only the amount recycled and composted. DO NOT include amount sent to a yard trash/land-clearing debris landfill. DO NOT include sludge composting (refer to municipal sewage sludge row).												
SUBTOTAL FOR BANNED ITEMS:												
<b>MISCELLANEOUS</b>												
Antifreeze												
Consumer Electronics												
Fluorescent Tubes												
Food Waste (post-consumer only)												
Household Hazardous Materials												
Latex Paint												
Mattresses												
Used Oil Bottles (if not included in #2 plastics)												
Used Oil Filters (One used oil filter (crushed) weighs about 1 pound; uncrushed weighs about 1 lb. 5 oz. One 55-gallon drum holds about 750 crushed filters or about 250 uncrushed.												

Continued on the following page

YEAR: \_\_\_\_\_ LOCATION TYPE: \_\_\_\_\_ UNITS: \_\_\_\_\_

*Indicate measurements in tons or pounds.*

MISCELLANEOUS (continued)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
<b>Wood:</b>												
Wood Packaging (pallets, crates, barrels if recycled into mulch, compost or similar use)												
Other Wood (furniture, cabinets, consumer electronics & other non-packaging wood products; excludes wood from C&D and industrial)												
SUBTOTAL FOR MISCELLANEOUS:												
<b>OTHER</b>												
Abatement Debris (waste resulting from remediation activities)												
Agricultural Waste (generated by the rearing of animals)												
Automobile Bodies												
Combustion Ash												
Industrial Sludge (composted)												
Industrial Sludge (land applied)												
Municipal Sewage Sludge (composted)												
Municipal Sewage Sludge (land applied)												
<b>Construction &amp; Demolition Debris (C&amp;D):</b> (Include only the amount recycled. DO NOT include the amount diverted from a MSW landfill to a C&D landfill. If possible, list C&D by the category listed below.)												
Asphalt												
Brick/Block												
Concrete												
Gypsum Drywall												
Metal/Sheet												
Natural Disaster Debris												
Shingles												
Wood Scraps												
Other												
SUBTOTAL FOR OTHER:												
<b>ITEMS NOT LISTED ABOVE</b>												
SUBTOTAL FOR ITEMS:												
<b>GRAND TOTAL:</b>												

# Appendix III: Other Resources

## ORGANIZATIONS

Association of Lighting and Mercury Recyclers  
[www.almr.org](http://www.almr.org)

DHEC's Center for Waste Minimization  
(803) 896-8986  
[www.scdhec.gov/eqc/admin/html/wastemin.html](http://www.scdhec.gov/eqc/admin/html/wastemin.html)

DHEC's Office of Solid Waste Reduction and Recycling  
1-800-768-7348 • [www.scdhec.gov/recycle](http://www.scdhec.gov/recycle)

DHEC's Small Business Assistance Program  
1-800-819-9001  
[www.scdhec.gov/eqc/admin/html/sbap.html](http://www.scdhec.gov/eqc/admin/html/sbap.html)

Inform – Strategies for a Better Environment  
[www.informinc.org/fact\\_P3fluorescentlamps.php](http://www.informinc.org/fact_P3fluorescentlamps.php)

Lamp Recycle.org  
[www.nema.org/lamprecycle](http://www.nema.org/lamprecycle)

Office of the Federal Environmental Executive  
[www.ofee.gov](http://www.ofee.gov)

S.C. Business Recycling Assistance Program  
(803) 737-0239 or 1-800-768-7348  
[www.scdhec.gov/brap](http://www.scdhec.gov/brap)

S.C. Recycling Market Development Advisory Council  
(803) 737-0477  
[www.sccommerce.com/callsc.cfm?page=recycling&document=home](http://www.sccommerce.com/callsc.cfm?page=recycling&document=home)

Southeast Rural Community Assistance Project, Inc.  
(803) 356-8147 • [www.sercap.org](http://www.sercap.org)

University of South Carolina's School of the Environment  
(803) 777-9061 • [www.environ.sc.edu](http://www.environ.sc.edu)

U.S. Environmental Protection Agency (U.S. EPA) –  
Technical Issues About Universal Waste  
[www.epa.gov/epaoswer/hazwaste/id/univwast/quest.htm#exempted](http://www.epa.gov/epaoswer/hazwaste/id/univwast/quest.htm#exempted)

U.S. EPA's WasteWise Program  
[www.epa.gov/wastewise](http://www.epa.gov/wastewise)

U.S. EPA's Resource Conservation Challenge  
[www.epa.gov/rcc](http://www.epa.gov/rcc)

## PUBLICATIONS AVAILABLE ON THE INTERNET

S.C. Index of Waste Minimization Resources  
[www.scdhec.gov/eqc/admin/html/wmrindex.html](http://www.scdhec.gov/eqc/admin/html/wmrindex.html)

A Listing of S.C. County and Municipal Recycling Coordinators  
[www.scdhec.gov/recycle/html/counties.html](http://www.scdhec.gov/recycle/html/counties.html)

## What is WasteWise?

WasteWise is a free, voluntary U.S. Environmental Protection Agency program in which organizations eliminate costly solid waste, benefitting their bottom line and the environment.

WasteWise is a flexible program that allows partners to design their own solid waste reduction programs tailored to their needs.

To be WasteWise, partners join the program for a three-year period and undertake the following activities:

- **Commit to reducing waste.**
- **Establish waste reduction goals.**
- **Track progress.**



Preserving Resources,  
Preventing Waste

## Who can join WasteWise?

Any organization can join. Large and small businesses from any industry sector are welcome to participate. Institutions, such as hospitals and universities, non-profits and other organizations, as well as state, local and tribal governments also are eligible to participate in the program.

## How do you join WasteWise?

Complete a registration form on-line at [www.epa.gov/wastewise](http://www.epa.gov/wastewise). Registration forms also are available by calling WasteWise at 1-800-EPA-WISE.



DHEC's Office of Solid Waste Reduction & Recycling

**1-800-768-7348**

[www.scdhec.gov/recycle](http://www.scdhec.gov/recycle)



Business **RECYCLING** Assistance Program

**1-800-768-7348 or (803) 737-0239**

[www.scdhec.gov/brap](http://www.scdhec.gov/brap)

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